



Channel Islands National Marine Sanctuary Sanctuary Manager's Report



Volume 3, Number 5

A report for the Sanctuary Advisory Council and Sanctuary Constituents

Reporting period: September 3 to November 4, 2005

ABOUT THE SANCTUARY

Designated in 1980, the Channel Islands National Marine Sanctuary (CINMS or sanctuary) consists of an area off the coast of California of approximately 1,252.5 square nautical miles adjacent to the following islands and offshore rocks: San Miguel Island, Santa Cruz Island, Santa Rosa Island, Anacapa Island, Santa Barbara Island, Richardson Rock, and Castle Rock, extending seaward to a distance of six nautical miles. The islands vary in distance from 12 to 40 nautical miles offshore from Santa Barbara and Ventura counties in southern California.

A fertile combination of warm and cool currents in this area results in a great variety of plants and animals including kelp forests, fish and invertebrates, pinnipeds, cetaceans and sea birds. The sanctuary also has a wealth of maritime heritage resources including Chumash Native American artifacts and over 100 historic shipwrecks. Human uses in the area include commercial and recreational fishing, marine wildlife viewing, boating, diving, kayaking, maritime shipping, nearby offshore oil and gas development, research and monitoring, and numerous educational activities.



NATIONAL MARINE
SANCTUARIES™

CHANNEL ISLANDS

1980 ★ 2005

25th Anniversary

Discover the Past, Chart the Future!

SANCTUARY 25TH ANNIVERSARY CELEBRATION

On September 29th the Channel Islands National Marine Sanctuary (CINMS or sanctuary) celebrated its 25th Anniversary at the Santa Barbara Zoo. The evening began with a breathtaking view of the Channel Islands from the zoo's hillside with refreshments and hors d'oeuvres provided by the Channel Islands Marine Sanctuary Foundation. Celebration activities included presentation of the Channel Islands Naturalist Corps Volunteer of the Year award to Warren Glaser, Sanctuary Advisory Council Volunteerism Award to Dr. Matt Cahn, and recognition of all Channel Islands National Marine Sanctuary volunteers by Assemblyman Pedro Nava. (Read more about Glaser and recognition of other Channel Islands Naturalist Corps members on page 11.) In addition, throughout the evening the CINMS 25th Anniversary photo contest winning images were on display (they are now on exhibit at the Chase Palm Park Building in Santa Barbara). Following the awards ceremonies Sanctuary Advisory Council member Jim Knowlton and Sanctuary Volunteer Ingrid Lantz provided a beautiful and inspiring slide show of images from the Channel Islands set to music. The evening ended under the warm, starry night with live music provided by Super Hip. With over 250 guests in attendance the evening was filled with friends and family, and an overall appreciation for the sanctuary, Channel Islands National Park (CINP or park), and our amazing volunteers.

The National Marine Sanctuary Foundation, Channel Islands Marine Sanctuary Foundation, and CINMS coordinated a 25th Anniversary Black tie Gala Fundraiser on October 7th at the La Pacifica Ballroom at the Four

Seasons

Biltmore Resort.

Jean Michael

Cousteau served

as emcee of this

event that

honored

members of the

community who

have made a

commitment to

the conservation

and protection

of our marine

environment.

Window on the Sanctuary

"Bat Cave" Bat star (*Patiria miniata*) in a scallop shell attached to the shipwreck Aggi. Photo: Robert Schwemmer.



Congresswoman Lois Capps and Governor Arnold Schwarzenegger were honored with the National Marine Sanctuary Foundation's Stewardship Award. Jean and Barry Schuyler and Captain Fred Benko were honored with the National Marine Sanctuary Foundation's Lifetime Achievement Award. A silent auction of items provided by numerous generous contributors yielded \$10,000 in donations to the two foundations. In total, this event raised \$36,000 to support the ongoing work of the Channel Islands Marine Sanctuary Foundation and the National Marine Sanctuary Foundation. During the reception several speakers including Dan Basta, National Marine Sanctuary Program (NMSP) Director, and Chris Mobley, CINMS Manager, emphasized the importance of the Channel Islands National Marine Sanctuary and the National Marine Sanctuary Program. Attendees enjoyed several short films displaying the magic and magnificence of the waters of the CINMS and the other national marine sanctuaries around the country.

SANCTUARY ADVISORY COUNCIL

Study of Sanctuary Advisory Councils

A team of graduate students from the University of Michigan's School of Natural Resources and Environment is conducting a masters' project to study sanctuary advisory councils. The research team is interested in answering the following questions:

- What have been the range of experiences and accomplishments of the advisory councils?
- What challenges have they encountered and how have they been overcome?
- What factors facilitate the effectiveness of an advisory council process?
- What suggestions do advisory council members have for enhancing the ability of advisory councils to productively contribute to management of natural and cultural resources?
- What are the lessons from the sanctuary advisory council experience that can be extended to advisory council processes in other realms?

The research team is also conducting case studies at three sanctuaries: Channel Islands, Monterey Bay and Stellwagen Bank. The students will be setting up phone interviews with several advisory council members from these sites. The case studies will help the team interpret the survey results and provide a more in-depth understanding of the advisory councils. After the team is finished with its analysis and report, several students will make a presentation at the Sanctuary Advisory Council Chairs' meeting in April in Washington, D.C.



CINMS and NMSP staff and Advisory Council representatives enjoy a hike on Santa Cruz Island during the recent retreat. Photo: Sarah MacWilliams.

Sanctuary Staff and Advisory Council Retreat

The Sanctuary Advisory Council held its annual retreat from October 26 – 28. The retreat was held at the University of California, Santa Barbara's Santa Cruz Island Natural Reserve field station. The weather was great and clear evening skies provided a fantastic view of the Milky Way. Activities included a discussion of the future of the sanctuary over the next twenty-five years, hiking in the central valley, kayaking and hiking from Prisoners to Pelican, touring the Stanton Ranch, and eating delicious meals cooked by Pamela LeBlanc and provided by the National Marine Sanctuary Foundation. At the end of the trip, while leaving Scorpion anchorage, we saw an adult bald eagle dive for food in the sanctuary waters and enjoyed a rare sighting of a minke whale. Overall the retreat was a great time for sanctuary staff and

Advisory Council members to become better acquainted with each other and experience and appreciate the sanctuary and park.

2006 Sanctuary Advisory Council Annual Plan

Over the next two CINMS Sanctuary Advisory Council (Advisory Council) meetings (November 18, 2005 and January 22, 2006) the Advisory Council will be setting an annual agenda for 2006. In 2005, the Advisory Council worked on such topics as marine reserves, management plan revision, water quality, marine acoustics, liquid natural gas terminals, aquaculture, and understanding local fishing practices. Advisory Council members are open to suggestions from the public and their constituents regarding the setting of priorities for the coming year.

MARITIME HERITAGE PROGRAM

Education and Outreach

Robert Schwemmer, CINMS Maritime Heritage Resources Coordinator, gave a lecture on the use of submersibles and remotely operated vehicles (ROV) to explore shipwrecks to a group of 6th grade students at Peachland Elementary who are participating in the First Lego League Robotics national competition. This year's theme is Ocean Odyssey and participating students are to conduct research on an ocean related theme by identifying a problem faced by our oceans and developing a creative solution to that problem. Lego/microprocessor based robots built by the students will attempt to perform a series of missions and the students will report on the results of a research project selected by the team. For more information on the First Lego League Robotics competition go online to:

<http://www.firstlegoleague.org/nobanner.aspx?pid=17940>.



Robert Kurson lecture at the Santa Barbara Maritime Museum (left). Schwemmer and Kurson (right).
Photos: Mark Norder and Robert Schwemmer.

Kip Evans is working on 12 short web-based videos for the National Oceanic and Atmospheric Administration (NOAA) and the National Geographic Society. The two to three minute videos are being

produced to help highlight the NMSP in classrooms throughout the United States. Schwemmer has been providing Evans with still and videotape footage for one of the videos that highlights CINMS shipwrecks.

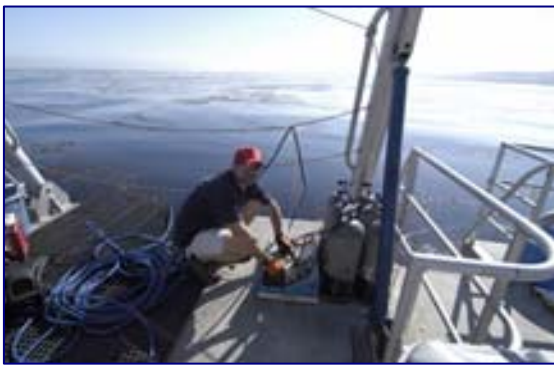
Schwemmer introduced Robert Kurson, author of the publication *Shadow Divers*, during a public lecture held at the Santa Barbara Maritime Museum. Kurson, a Harvard Law School graduate whose writing has appeared in the *New York Times Magazine*, *Rolling Stone*, *Esquire*, and the *Chicago Sun Times*, became fascinated with the leaders of a dive team and their quest to solve the mystery of a lost German U-boat off the New Jersey coast. The divers turned historians ultimately revealed the mystery wreck as the submarine *U-869*, previously reported lost off Gibraltar. For more information on *Shadow Divers* visit: <http://robertkurson.com>.

Resource Protection

A five-day shipwreck reconnaissance expedition was completed at the Channel Islands aboard the NOAA R/V *Shearwater* from October 17-21. Expedition team members included divers from the sanctuary, Channel Islands National Park, and the Coastal Maritime Archaeology Resources (CMAR) organization. Archaeological investigations included further documentation of a *Grumman AF-2W Guardian* airplane lost off Santa Cruz Island and site evaluation of the F/V



Mark Norder (CMAR) entering the water from the R/V *Shearwater* off Santa Rosa Island. Photo: Robert Schwemmer.



Robert Schwemmer (CINMS) manning the air control station to provide divers air to run the pneumatic hammer drill. Photo: Luman Moody.



Charles Lara (CINMS) surveying the shipwreck *Aggi*. Photo: Robert Schwemmer.

Reliance lost at Santa Rosa Island. The third site recorded was a three-masted full-rigged sailing ship named *Aggi* lost 90 years ago off Santa Rosa Island.

The dive team spent the majority of the expedition at the *Aggi* site adding one additional datum monitoring station and georeferencing the existing five datums installed in 2004. The permanent datums will allow for accurate measurements of major artifacts during the second five-day expedition to the site scheduled for November 14-18 aboard the National Park Service's R/V *Pacific Ranger*. The shipwreck reconnaissance program at the Channel Islands has been an ongoing collaboration between the sanctuary, National Park Service, CMAR, and the State of California for nearly 25 years. Visit these websites for more information on the Shipwreck *Aggi*:



Channel Islands National Park Archaeologist Kelly Minas installing a datum at the *Aggi* site. Photo: Robert Schwemmer.

<http://www.channelislands.noaa.gov/shipwreck/dbase/cinms/aggi.html>
<http://www.channelislands.noaa.gov/shipwreck/dbase/cinms/aggi1.html>

During the month of September, Schwemmer attended a three-week working diver training program at the NOAA Diver Center in Seattle, Washington to advance his knowledge and skills working in the underwater environment.

Regional Maritime Heritage Program

Robert Schwemmer conducted research and provided images of the shipwreck *General M. C. Meigs* for a future article about P2-type troopships for the British magazine *Ships Monthly*. *Meigs'* war career spanned from WWII through the Korean War transporting thousands of troops before being lost while under tow near Cape Flattery on the Washington Coast. Bruce Terrell and Robert Steelquist led an archaeological investigation to record the site in 1997 and Schwemmer, as a member of the Coastal Maritime Archaeology

Resources group, conducted dives on the site for the Olympic Coast National Marine Sanctuary.

RESEARCH AND MONITORING

Research and Monitoring Program Annual Report

In 2005 sanctuary staff developed a summary of research and monitoring activities that occurred in the sanctuary during 2004. The 2004 Research Summary is the first in an annual series of CINMS annual research summaries. The 2004

summary has been distributed to the Advisory Council's Research Activities Panel and will soon be available on the CINMS website: <http://channelislands.noaa.gov>. Work has begun on the 2005 Research Summary, which sanctuary staff hope to have completed in the next few months.

Research and Monitoring Activities

Remotely Operated Vehicle (ROV) Study of Channel Islands Marine Protected Areas (MPAs)

The research vessel (R/V) *Shearwater* completed a highly successful seventeen-day ROV cruise on October 11th. The purpose of the cruise was to quantify finfish abundance and explore Channel Islands MPAs. The cruise was conducted in partnership with the California Department of Fish and Game (CDFG) and Marine Applied Research and Exploration (MARE) and is a part of the marine reserves and conservation areas monitoring plan. The science team completed all ten planned survey sites and completed 120 km of transects (20 km more than planned). Transects were completed inside and outside MPAs at San Miguel, Santa Rosa, Santa Cruz, and Anacapa islands. Highlights of the video surveys included spectacular high relief habitat at San Miguel Island and a sea lion interacting with a six-gill shark.

2005 Deep Habitat Assemblages- Research, Monitoring and Assessment (DHARMA) Program

CINMS, in partnership with scientists from UCSB's Marine Science Institute, completed a five-day cruise on board the R/V *Velero* using the submersible *Delta*. This cruise is a part of the ongoing monitoring plan for the deep-water portions of existing and proposed marine reserves and conservation areas. One major goal of this cruise was to conduct submersible habitat and faunal surveys over areas recently surveyed by ROV (see above) to compare data collected using these two methods. Twenty-three transects (approximately 16.5 km) were completed inside reserves at Anacapa Island,

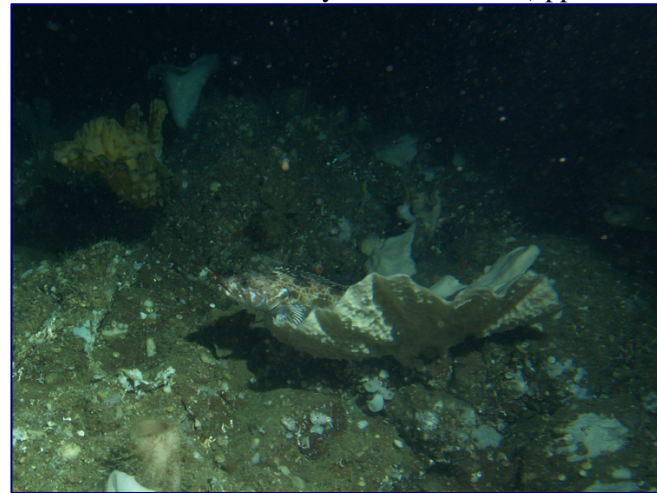


Image taken from Delta submersible: lingcod perching on a white basket sponge. Photo courtesy of the UCSB Love Lab.

repeating the same transect lines surveyed using the ROV. Another twenty-three transects (approximately 14.5 km) were completed at the Gull Island reserve, where the ROV had also surveyed.

In addition to methods comparison, surveys were conducted on Footprint Reef (south of Anacapa Island) to explore two geologic features, the Footprint Ridge and the Piggy Bank, and to collect samples of the newly discovered Christmas tree coral (*Antipathes dendochristos*) to determine if color variations are actually different species. In addition, the researchers groundtruthed habitat maps provided by Guy Cochrane of the US

Geologic
al Survey.
Highlight
s of the

cruise included video and photo documentation of three extremely rare rockfishes (the bronze-spotted, chameleon, and semaphore rockfishes) inside the proposed Footprint MPA and the discovery in the CINMS of a deepwater skate nursery ground containing thousands of egg cases.

Kelp Forest Monitoring

The R/V *Shearwater* facilitated five days of kelp forest monitoring by CINP. The park has engaged in kelp forest monitoring since 1982 to determine the health of kelp forests in the park. Now kelp forest monitoring is also a part of the marine reserves monitoring plan.

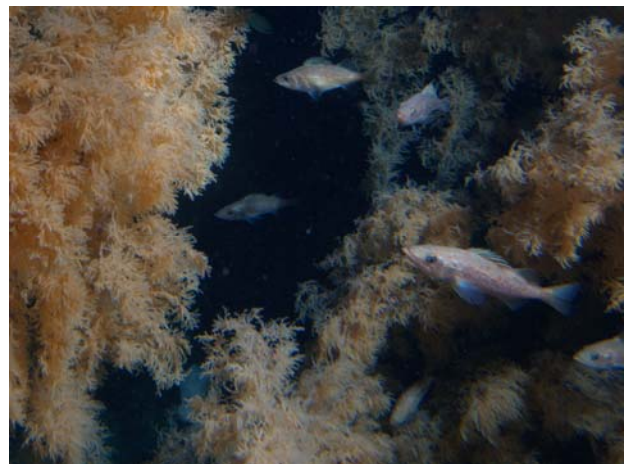


Image taken from the Delta submersible: juvenile bocaccio in Christmas tree coral. Photo courtesy of the UCSB Love Lab.

Plumes and Blooms

Three days of surveys were conducted on board the R/V *Shearwater* for the Plumes and Blooms project. Plumes and Blooms is an ongoing collaboration between scientists from UCSB, the Institute of Computational Earth System Science (ICESS), NOAA and CINMS as part of a long-term project to characterize changes in water color resulting from sediment plumes and phytoplankton blooms.

Ashy Storm-Petrel Seabird Surveys

Bill McIver of the US Fish and Wildlife Service in Ventura completed breeding season surveys of ashy storm-petrels in CINMS for the 11th consecutive season. The overall goal of the long-term ashy storm-petrel nesting monitoring program at Santa Cruz Island is to determine factors affecting breeding success of the species at nesting colonies, including predation and human disturbance (e.g., cave visitation by tourists). McIver was on board the CINMS R/V *Xantu* with sanctuary staff for two days in October to monitor ashy storm-petrel nesting activities at three locations along the north coast of Santa Cruz Island: Cave of the Bird's Eggs, Orizaba Rock, and Cavern Point Cove. They found active nests (with chicks approximately 30 to 60 days old) at two locations, and at one location all of the chicks had fledged (thus all the nests were empty). A return trip to Cave of the Bird's Eggs in November found the same active nests.

Movement behavior of fishes in the Florida Keys

Sarah Fangman, CINMS Research Coordinator, is currently participating in a research project with partners from the Pflieger Institute of Environmental Research (PIER) and Flower Garden Banks National Marine Sanctuary at the Aquarius habitat, an underwater laboratory located at a depth of 63 feet in the Florida Keys National Marine Sanctuary. The primary objective of this project is to quantify the movement of fishes in the Conch Reef Sanctuary Preservation Area/Research Only Area reserve, including Black Grouper (*Mycteroperca bonaci*), Yellowtail Snapper (*Ocyurus chrysurus*), Princess Parrotfish (*Scarus taeniopterus*), and Hogfish (*Lachnolaimus maximus*).

Fish are captured, inserted with coded-acoustic pingers and released at the sites where they were captured. Each pinger has a unique identification code associated with it, allowing the movement of individual fish to be tracked for months at a time using acoustic receivers. Researchers hope information from this project can be used to evaluate whether the reserve is located and sized appropriately to protect species of interest, and whether there is spillover of exploitable fish from the reserve into surrounding fished areas.

New Research Assistant

In October Danielle (Dani) Lipski began her work as the CINMS Research Assistant. Her responsibilities are related to research permits, research outreach, fieldwork, data processing and analysis, and supporting the Advisory Council Research Activities Panel. Originally from the east coast, she received her bachelor's degree in biology from the University of Maryland, Baltimore County and went on to work as a research biologist at the Smithsonian Environmental Research Center near Annapolis, Maryland. Dani recently received her master's degree in ecology from San Diego State University where she studied recruitment of fishes to seagrasses. Her professional interests focus on habitat use and applied marine conservation research. A scientific SCUBA diver, she is looking forward to training for NOAA diver certification. Please join us in welcoming Dani to the sanctuary community.



Dani Lipski is the new CINMS Research Assistant. Photo: Sarah MacWilliams.

VESSEL AND AIRCRAFT OPERATIONS

Vessel Program Support

During the reporting period R/V *Shearwater* supported three education and outreach events, three ecological monitoring projects, and one maritime heritage resource monitoring project with CINMS. In

addition, R/V *Xantu* supported one seabird monitoring project and one maritime heritage resource monitoring project. For details on these projects please refer to the relevant program section in this Sanctuary Manager's Report. In addition, R/V *Shearwater* facilitated the following projects in Monterey Bay National Marine Sanctuary (MBNMS) with MBNMS and University of California Santa Cruz personnel (01-17 September):

- Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) subtidal SCUBA surveys.
- Assessments of Essential Fish Habitat for newly settled rockfishes, using over-the-side camera equipment.
- Jellyfish surveys using Tucker trawls.

Other Vessel Activities

Sanctuary staff members welcomed Brigadier General (Ret.) Jack Kelly, Deputy Undersecretary of Commerce for Oceans and Atmosphere/NOAA, aboard the R/V *Shearwater* for a short orientation to the vessel and a demonstration of her capabilities. Scientists from CDFG and MARE conducted a brief ROV dive to illustrate the use of *Shearwater's* winch and A-frame, and to explain the process of collecting oceanographic data while at sea.

Aircraft Maintenance and Operations

From September 3rd through November 4th Lt Julie Helmers, Sanctuary Pilot, flew the CINMS Lake Renegade Sea Wolf aircraft for a total of 42.6 flight hours, including at least twelve marine reserve monitoring and Sanctuary Aerial Monitoring and Spatial Analysis (SAMSAP) flights. Flights covered all five islands and surrounding waters within the sanctuary and park.

EDUCATION, VOLUNTEER, AND OUTREACH PROGRAMS

Special Events

2005 From Shore To Sea Lecture Series: 25 Years of Research and Monitoring in the Channel Islands

The sanctuary and park are celebrating their 25th anniversaries in this year's "From Shore to Sea" lecture series by featuring speakers who have made significant contributions to protecting sanctuary and park resources. The 2005 lecture series has been expanded to include lectures in both Santa Barbara and Ventura. The lectures are scheduled at 7:00 p.m. on the second Tuesday and Wednesday of each month in Santa Barbara and Ventura, respectively. The Tuesday night Santa Barbara lectures are held at the Chase Palm Park building at 236 E. Cabrillo Blvd. The Wednesday night Ventura lectures are at the park's Robert J. Lagomarsino Visitor Center located at 1901 Spinnaker Drive in Ventura Harbor. The lectures are free and open to the public. For more information visit: www.channelislands.noaa.gov/focus/calendar.html. The schedule of speakers is posted in the box (above).

Santa Barbara Harbor Parade of Lights

On Sunday December 11, 2005 the Santa Barbara Harbor will be holding its twentieth annual Parade of Lights in the Santa Barbara Harbor. The theme this year is "Roaring Twenties", in honor of its anniversary, and will be judged in five

From Shore to Sea 2005 Lecture Series 25 YEARS of RESEARCH & MONITORING in the CHANNEL ISLANDS

Recent and Upcoming Lectures

Dates	Speaker(s)
Nov 8, 9	Steve Junak, Herbarium Curator, Santa Barbara Botanic Garden
Dec 13, 14	Frank Gress, Sea Bird Biologist, Channel Islands National Park

Santa Barbara Lectures (Tuesdays)

7 pm at Chase Palm Park Center, 236 E. Cabrillo Blvd., Santa Barbara

Ventura Lectures (Wednesdays)

7 pm at Channel Islands National Park, Robert J. Lagomarsino Visitor Center, 1901 Spinnaker Drive, Ventura

For more information including speaker topics go to:

<http://www.channelislands.noaa.gov/focus/calendar.html>



categories by five distinguished community members, including Chris Mobley, Sanctuary Manager. The activities will begin at 3:00 pm on the city pier where Santa Claus and Mrs. Claus will be greeting children with snow, goodies and carolers until 5:00 pm. Then the parade will begin around 5:30 pm with emceeing and announcements made from Stearns Wharf, followed immediately by an award ceremony and party at Chuck's Waterfront Grill.

Santa Barbara Harbor Seafood Festival

Staff from CINMS, CINP, and the NMSP, and volunteers from the Channel Islands Naturalist Corps participated at the fifth annual Santa Barbara Harbor Seafood Festival on October 15. Staff and volunteers helped at the festival in a range of ways: giving tours of the sanctuary's R/V *Shearwater*, helping children make fish and kelp prints at the arts and craft area, giving tours of the tall ship *Spirit of Dana Point*, providing information at the sanctuary and park booths, and working side by side with local fisherman at food booths. The event raised money for the Page Youth Center, a local organization that promotes physical education and activities for youth. The festival was enjoyed by all and the sanctuary looks forward to partnering with the Santa Barbara Harbor and local fishermen in future Santa Barbara Harbor seafood festivals.

White Abalone Restoration Project

On December 1, 2005, the sanctuary will take students and faculty from Oxnard College and Channel Islands Marine Resource Institute (CIMRI) out to Santa Cruz Island aboard the R/V *Shearwater* to monitor white abalone habitat modules. Student interns will be working alongside CINP divers and researchers to record size frequency and abundance data on transplanted white abalone in four underwater habitat modules. Divers will use underwater audio and video systems to communicate with students topside as they monitor each module. This program is in support of a new five-year NOAA Minority Serving Institution and Environmental Partnership Program Grant that CIMRI and Oxnard College were recently awarded.

Students will receive formal training in Oxnard College's Marine Studies Program, experience working with the white abalone at the CIMRI hatchery, and participate in monitoring the reintroduction of the endangered white abalone on cruises aboard the sanctuary's R/V *Shearwater*.



A young Seafood Festival participant makes a fish print at the arts and crafts booth (top). Sanctuary Manager Chris Mobley was one of several sanctuary staff who helped serve seafood during the Santa Barbara Harbor Seafood festival (bottom).
Photos: Laura Francis.

Workshops

Long-term Monitoring Program and Experiential Training for Students (LiMPETS) Workshop

A two-day LiMPETS workshop was held September 20-21 at the Los Angeles County Outdoor Science School in Malibu upon the request of that school's director, Greg Achenbach. Achenbach attended our 2005 West Coast LiMPETS workshop last March and decided that both the LiMPETS rocky intertidal and sandy beach programs would work well in his school's science curriculum. Jonna Engel of CINMS, Lisa Emanuelson from Monterey Bay National Marine Sanctuary, and Steve Wood from the Gulf of the Farallones Marine Sanctuary Foundation each gave several presentations and led classroom and field sessions during the September workshop. In addition, two wonderful guest scientists gave presentations: Dawn Osborn and Jenny Dugan. In total there were 15 participants: eight instructors from the LA County Outdoor Science School, three Cabrillo Marine Aquarium Education staff, one Santa Barbara Community Environment Center staff, and three LA school teachers including the incredible Dena Deck. Everyone agreed that the workshop was a huge success!

Thanks to budget support from CINMS and the LiMPETS program, Jonna Engel has been able to put together nine new LiMPETS sandy beach sampling kits and four new LiMPETS rocky intertidal sampling kits. The kits are being distributed among seven different institutions and organizations partnering with CINMS in the LiMPETS program from LA, Ventura, and Santa Barbara counties.

Education Committees

Ocean Research Interactive Observatory Networks (ORION) Education and Public Awareness Committee

Julie Bursek, CINMS Education Coordinator, was accepted to represent the NMSP on the ORION Education and Public Awareness Committee (Committee) to advise the ORION program in matters of education and public awareness. In particular, the Committee will advise the ORION Project Office on how to most effectively exploit the unique capabilities of ocean observatories to enhance science education and public awareness of the oceans. ORION is a program that focuses on science, technology, education and outreach through an emerging network of science-driven ocean observing systems. Building on the heritage of the ship-based expeditionary era of the last century, oceanography is commencing a new phase in which research scientists increasingly seek continuous interaction with the ocean environment to adaptively observe the earth-ocean-atmosphere system. The Committee met in October to begin outlining a strategic plan for education and outreach. Another meeting is scheduled December 1-2 to complete a draft of the strategic plan. For more information about ORION please visit the website <http://www.orionprogram.org>

Meetings

NMSP California Signage Plan Meeting

Laura Francis, CINMS Education Coordinator, attended a California Signage Committee meeting in San Francisco on October 17th and has been working with Julie Bursek and local partners on developing interpretive signs. The California Signage Committee reviewed layouts for signs developed by Leslie Stone and Associates. Channel Islands signs will include three panels at the Santa Barbara Zoo (in final review), six boat launch ramp signs (two each in Santa Barbara, Ventura and Channel Islands Harbors - all in first draft review), and two panels for the CINP (in first draft review).

New Outreach Center for Teaching Ocean Science (OCTOS) Exhibit Design

On October 19th, Laura Francis and Todd Jacobs participated in interviews of exhibit designers for the new OCTOS center that will be built at the UCSB campus. Three firms (John Swanson and Associates, DeZign Skape, and Thinc) each provided one-hour presentations and invited questions from the building committee, which includes both UCSB and sanctuary representatives, and architectural firm Eskew + Dumez + Ripple. After the presentations the interview committee unanimously chose Thinc as the exhibit designer for the building. Thinc creates unique places by evolving existing models and creating entirely new ones where needed. Their basic principles include appropriateness (understanding the junction between institutions, their goals and their community), effectiveness (how deeply the project effects and stimulates change), and sustainability (including both a green building ethic and the long-term functionality of the designs and installed systems, and matching an institution's operational capacity and the built environment). Mike Shakespear, Thinc project director, stayed in Santa Barbara on October 20th and spent the day with sanctuary and UCSB staff learning more about the two institutions. He toured the UCSB campus, the sanctuary harbor office, and other visitor centers in Santa Barbara (Sea Center and Santa Barbara Maritime Museum) and Ventura (Channel Islands National Park). Schematic design for the OCTOS center will begin during the week of November 14th and architects and exhibit designers will be "immersed" in the Channel Islands on a trip aboard the R/V *Shearwater*.

New Products

New Channel Islands High Definition Film

CINMS will be working with NOAA's National Ocean Service Ocean Media Center to create a 20-26 minute video produced in high definition and a 1-2 minute video trailer for the longer film. This film will give the viewer a visit to and educate them about the unique ecosystems of the sanctuary and park. The audience's ocean literacy will be enhanced by learning about the formation of these special islands and examining the inter-connectivity of the land and the sea.



NMSP Education Mini-Grant Submission: *Follow that Fish!*

In October, Jonna Engel, along with James Lindholm, PIER scientist, and Beth Redmond-Jones, Aquarium of the Pacific Director of Exhibits, submitted an education mini-grant to support a *Follow that Fish!* exhibit at the Aquarium of the Pacific. *Follow that Fish!* is an innovative exhibit concept that will educate visitors about marine science by introducing them to a cutting-edge research project and the applications of the project's findings. The exhibit will highlight ongoing acoustic telemetry research conducted by PIER scientists in three national marine sanctuaries: Channel Islands, Stellwagen Bank, and Florida Keys. Telemetry research is increasingly being used to understand fish movement around the world and the acoustic array in the Channel Islands is the largest in the world with a total of 94 nodes. The Aquarium of the Pacific's Blue Cavern tank provides the optimal setting for *Follow that Fish!*. Blue Cavern is a magnificent three-story, 125,000-gallon tank located in the Great Hall of the Pacific and modeled after a beautiful grotto where a lush kelp forest occurs on Santa Catalina Island. The tank includes each of the four fish species tagged as part of the acoustic telemetry research occurring in CINMS. We are very hopeful that *Follow that Fish!* will be funded by the NMSP.

Channel Islands Naturalist Corps (CINC) Volunteer Program

September and October Whale Watch Vessel Excursions

CINC volunteers offered daily interpretation to passengers on the *Condor Express* out of Santa Barbara Harbor during the month of September, and five times per week during the month of October. During November, the *Condor Express* continues to run trips five times per week, billing them as wildlife excursions, focusing on dolphins and pinnipeds, and CINC volunteers are regularly on board to offer interpretation.

Additionally, 17 specially-trained CINC volunteers conducted photo-identification research on the *Condor Express* during September. This research, which involves photographing blue whales' dorsal fins and humpback whales' flukes, helps Cascadia Research Collective (in Olympia, Washington) identify and monitor cetaceans in the Santa Barbara Channel.

September and October Island Programs

Ten volunteers conducted 23 formal interpretive hikes on Anacapa, Santa Cruz, Santa Rosa, and San Miguel islands during September, and seven volunteers conducted twelve hikes during October, working with both Island Packers out of Ventura area harbors and Truth Aquatics out of Santa Barbara Harbor. As of November, Island Packers trips have been curtailed to Santa Cruz Island at Scorpion Anchorage, due to the hunt for non-native pigs that is ongoing at the east end of the Island.

CINC Training

- 10/25/05 CINC Island Hike Training Meeting: 25 CINC volunteers attended a presentation at CINP headquarters by park ranger, Derek Lohuis, who gave an overview of the island naturalist program. Kate Faulkner, CINP Chief of Natural Resources, also gave a presentation on island research and the restoration of native plants and animals on park lands. The island hike program is available to all CINC naturalists after they have completed their first year in the regular CINC program. These volunteers will later become certified to lead formal interpretive hikes on the four northern Channel Islands. The required training continues into December and includes the November and December From Shore to Sea lectures.
- 10/27/05 CINC Island Hike Training Meeting: 25 CINC volunteers attended a presentation at CINP headquarters by the park's Chief of Cultural Resources, Ann Huston, who gave an overview of her programs and a cultural history of the islands. Yvonne Menard, CINP Chief of Interpretation and Education, also gave a presentation on formal interpretive skills, with an emphasis on guided walks and how they are themed presentations with goals and objectives.

- 10/29/05 Island Hike Training Trip to Anacapa and Santa Cruz Islands: Sarah Chaney, CINC restoration ecologist, accompanied Derek Lohuis and 25 island hike trainees on a trip to Anacapa and Santa Cruz Islands. Lohuis led the volunteers on a formal hike, modeling the formal interpretation that these volunteers will deliver once they are certified. Chaney identified native and non-native plants to the trainees and informed them of restoration projects for the flora of the islands.
- 11/19/05 Training Trip to Anacapa Island: Larry Ballard, a seasoned naturalist who is not a member of the CINC, will lead a training trip on Anacapa Island, where 32 new and returning island hike volunteers will learn to identify birds, plants, and insects. The R/V *Shearwater* will make the journey, departing from Santa Barbara Harbor.

Volunteer Recognition

At the sanctuary's 25th anniversary party at the Santa Barbara Zoological Gardens, select volunteers were honored for their achievements and the celebration served as the fifth annual CINC volunteer recognition dinner. Warren Glaser, Advisory Council member as well as CINC member, was named Volunteer of the Year for 2005. Glaser served as a mentor to new volunteers, participated on dozens of whale watch vessel excursions, and did outreach at numerous public events. He was awarded a trip for two to Santa Rosa Island with Channel Islands Aviation. Also recognized that evening were Glaser's fellow mentors: Barbara LaCorte (Advisory Council member and CINC Volunteer of the Year for 2004), Debra Herring (Volunteer of the Year for 2002), Bill Weinerth, Dennis Carlson, Louise Komp, and Lisa Anderson.

CINC Recruitment

Tuesday, November 15th, and Thursday, November 17th, there were evening orientation sessions to recruit new volunteers into the CINC program. The meetings were held in Santa Barbara and Ventura, respectively. Shauna Bingham, CINMS Volunteer and Outreach Coordinator, gave an overview of the NMSP and of CINMS, and also gave a detailed description of the CINC. Derek Lohuis spoke about the National Park Service and CINC, as well as the island hike program. Professional photographer Eric Zimmerman gave a slide show about what folks might expect to see on whale watch excursions or on island hikes. Applications were handed out to prospective volunteers; the deadline for applications is Wednesday, November 23rd. The new volunteers should be chosen by early December.

CHANNEL ISLANDS: STORIES FROM THE PAST

One-hundred and eleven years ago this month the British owned steamer *Crown of England* wrecked near Ford Point, Santa Rosa Island. On November 7, 1894 the vessel was en-route to Nanaimo, British Columbia from San Diego where she had just off loaded a cargo of coal. At 2 a.m. shrouded in fog the steamer struck the island and became a total loss. The crewmembers scouted the island to locate inhabitants, but with no success were forced to row their skiff all the way to Santa Monica where they reported the loss of the ship. The 297-foot steamer was built by Richardson, Duck and Co. at Stockton-on-Tees, Scotland in 1891 and at the time of her loss was owned by John Rosenfeld and Co. (Crown Steamship Co.). Due to a very successful salvage operation, all that remains today is a large anchor submerged at the site with anchor chain and on the bluff are the remnants of a donkey (auxiliary) boiler and stove used during the salvage operation. Wreck Canyon, Santa Rosa Island near the site is the official place name memorializing the shipwreck. More information on the shipwreck *Crown of England* is available at: <http://www.channelislands.noaa.gov/shipwreck/dbase/cinms/crownofeng.html>.



Wreck Canyon, Santa Rosa Island (top). Photo: Robert Schwemmer. Only known image of the *Crown of England* (bottom). Image courtesy of the Santa Barbara Historical Society.

Public Outreach

9/16-18/05, 2nd Annual Channel Islands Harbor Seafood Festival

Eight volunteers joined CINMS/CINP staff member Clare Fritzsche in doing outreach at the weekend harbor festival. Brochures and Seafood Watch cards were distributed to those interested.

9/17/05, 20th Annual Coastal Cleanup Day

15 volunteers spent the morning cleaning both Emma Wood State Beach in Ventura and Chase Palm Park Beach in Santa Barbara. Other members of the community joined in on the effort, and a couple of dozen large bags of trash were collected and appropriately discarded.

10/1/05, Fire & Ocean Rescue Expo

Four volunteers attended the busy CINC outreach booth at this event in Ventura Harbor, where literature on both CINMS and CINP was distributed.

10/2/05, Fox Festival

Four volunteers represented the sanctuary and park at this Santa Barbara Zoological Garden's event. Many questions were answered about the current status of the endangered island fox, which is found on Santa Cruz, Santa Rosa, and San Miguel Islands, and the various restoration efforts at the Channel Islands.

10/5/05, Volunteer & Internship Fair

One volunteer staffed the CINC table at Santa Barbara City College, informing students of the possibilities for volunteering and interning at the sanctuary and park.

10/11-12/05, Ocean Literacy Workshop II

Barbara LaCorte represented the sanctuary and park at the Aquarium of the Pacific's two-day workshop in Long Beach. The focus of the panel discussions was how best to engage adults in learning about marine issues and engaging them in active stewardship. The panel, of which LaCorte was a member, drafted some recommendations, which will be shared with the sanctuary.

10/15/05, Santa Barbara Harbor & Seafood Festival

15 volunteers joined NMSP staff in various outreach activities at this daylong event. CINC participation included staffing an informational table about the sanctuary, an arts and crafts table, and tours on the R/V *Shearwater*. 25th anniversary posters were given to those who could answer trivia questions about the sanctuary.

10/27-30/05, California Science Teachers Association Annual Conference

Clare Fritzsche represented CINMS at this conference in Palm Springs, distributing over 100 DVDs about the sanctuary, as well as posters, brochures, Alolkoys, and The Science of Marine Reserves booklet. Questions were answered about the educational opportunities available at the sanctuary. Approximately 3,000 science educators attended the event.

MANAGEMENT PLAN

At last report to the Sanctuary Advisory Council in September, CINMS staff were working through NOAA attorney edits to the sanctuary's Draft Management Plan/Draft Environmental Impact Statement (DMP/DEIS) and regulatory package. All comments have since been incorporated or otherwise addressed and NOAA's General Counsel for Ocean Services approved the entire package. In early November, newly appointed leaders of NOAA's National Ocean Service were briefed on the management plan and they provided approval for the package to be forwarded to final clearance checkpoints within NOAA and the Department of Commerce. At this stage we are hoping for final NOAA and Department of Commerce clearance to be granted this winter, but cannot predict with certainty when that will occur. Thus, we have not yet set dates for public hearings, but plan to schedule one in Ventura and one in Santa Barbara, in

addition to regularly scheduled Advisory Council meetings that will focus on understanding and commenting on the DMP/DEIS.

At the September 23rd Advisory Council meeting sanctuary staff provided an overview of the management plan revision process and DMP/DEIS documents, including explanations of the project's status, summary of proposed Action Plans, summary of proposed regulatory changes, next steps in the process, and discussion of the role of the Advisory Council and Working Groups during the public comment period. Notes from this presentation are available here:

<http://www.channelislands.noaa.gov/sac/minutes.html>.

Biogeography Study

The biogeography study, Biogeographic Assessment of the Channel Islands National Marine Sanctuary and Surrounding Areas, is now complete and the final report should be sent to the printers before the end of November. Advisory Council members will receive notice when the final report arrives, which will be available by web site download or by request in CD-ROM or hard copy format. For a summary of the study and its findings, refer to the Biogeography Team's presentation that was provided at the May 20th Advisory Council meeting, available here:

http://ccma.nos.noaa.gov/ecosystems/sanctuaries/chanisl_nms.html.

WEB SITE (<http://channelislands.noaa.gov>)

Recent Updates

Visit the web pages listed below to see recently updated sections of the CINMS web site.

The Maritime Heritage section of our web site now hosts information about the *Watson. A. West* shipwreck history at

<http://channelislands.noaa.gov/cr/watsonawest.html>.



What's new with Research and Monitoring? Check out http://channelislands.noaa.gov/res/cinms_res.html.

The Research section of the web site now hosts new content and informational links at

<http://channelislands.noaa.gov/res/links.html>.

An updated version of the R/V *Shearwater* 2005 vessel schedule is now online and available for viewing at

<http://channelislands.noaa.gov/res/calendar/2005.html>.

Don't forget to check out our calendar of events to find out what's happening locally:

<http://channelislands.noaa.gov/focus/calendar.html>.

New Features

In addition to weekly updates, the CINMS 25th Anniversary photo contest winners are now on exhibition at the Chase Palm Park Building in Santa Barbara. You can view the winning entries at

<http://channelislands.noaa.gov/anniversary.html>.

Media pages were developed during CINMS 25th Anniversary preparations to offer high-resolution images of Media Cruises and associated 25th Anniversary images for the press to access via the web for print purposes.

Upcoming Modifications

In addition to weekly updates, the Research section of the web site is undergoing a re-structure including the addition of recent programs and reports. For example, a Deep Water Monitoring Report and the 2004 Research Summary are now available online.

Development of an educational marine reserves “mini-site” is on deck for December and January. The mini-site will be one of the menu bar choices found in both the education and marine reserve sections of the CINMS web site and will have a navigation panel with the following choices: About Marine Reserves, Classroom Ideas (for K-12), Spotlight on a Scientist, Resources (literature and brochures), Maps, and Helpful links.

Please take a few moments to peruse the site. Your feedback is greatly appreciated. Comments and suggestions may be sent to amy.cale@noaa.gov.



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) AND NATIONAL MARINE SANCTUARY PROGRAM (NMSP) NEWS



Leadership Changes at the National Ocean Service

The National Ocean Service (NOS) is one of five line offices within NOAA, along with the National Marine Fisheries Service; National Environmental, Satellite, and Data Information Service; National Weather Service; and Office of Oceanic and Atmospheric Research. NOS is the line office in which the National Marine Sanctuary Program is housed. In October, Charlie Challstrom, former Director of NOS's National Geodetic Survey, became the Acting Assistant Administrator of NOS and Craig McLean became Deputy Assistant Administrator of NOS. Former NOS Assistant Administrator Dr. Richard Spinrad, and Deputy Assistant Administrator Jack Hayes, now serve as Assistant Administrator and Deputy Assistant Administrator, respectively, of the Office of Oceanic and Atmospheric Research.

Sanctuaries Sail Leadership Challenge, A Great Success!

Eighteen Office of National Marine Sanctuaries staff, representing ten national marine sanctuaries and NMSP headquarters, successfully completed leadership training aboard the tall ship *Spirit of Dana Point* in CINMS. Participants included scientists, educators, policy and technical specialists. All were selected through a competitive essay writing exercise to participate on the schooner during the five-day exploration of the sanctuary. Other subjects included interpersonal and intercultural communication, island biogeography, marine archaeology, maritime lore and literature, and marine conservation biology. The expedition culminated with a ship's port call and open house in Santa Barbara in commemoration of sanctuary's 25th anniversary. The training and educational curriculum was developed by three National Marine Sanctuary education coordinators: Julie Bursek of Channel Islands, Cathy Green of Thunder Bay, and Bob Steelquist of Olympic Coast.



Staff from ten national marine sanctuaries and NMSP Headquarters completed a five-day leadership challenge aboard the *Spirit of Dana Point*. Photo: Steve Lonhart.

Marine Protected Area (MPA) Management Capacity Building Training Program

The International Union for the Conservation of Nature (IUCN), the Vietnam Ministry of Fisheries, Danida, World Wildlife Fund (WWF), the US Agency for International Development (USAID), and NOAA have joined in a partnership to develop and offer the MPA Management Capacity Building Training Program. This training program provides a

knowledge base for developing local and regional capacity and expertise in designation, implementation and management of MPAs. The training program provides developing regions and MPA networks with the opportunity to benefit from the experiences of other regions and MPAs that may have a longer history of management, and to share experiences, knowledge and lessons learned. The training program will be tailored to specifically meet the management training needs of MPAs in the South China Sea region (Vietnam and Cambodia). A follow-up program will be instituted to ensure knowledge gained will be practically applied in the field and MPA management effectiveness improved.

CINMS's Laura Francis has been working with Anne Walton (NMSP) on overall coordination of the MPA Management Capacity Building Training Program pilot project that will take place in Nha Trang, Vietnam in early December. This program will set the stage for the development of a permanent MPA Training Center in Nha Trang that will offer on-going training to all sectors of civil society interested in the designation and implementation of MPAs. The 25-30 participants in the pilot will include MPA managers from China, Vietnam, and Cambodia. Instructors will be coming from these three countries, as well as from the Philippines, Australia, and the United States.

New Educational Discovery Kit Launched

A new Discovery Kit on nonpoint source pollution has been added to the NOS Discovery Center, and is available online at <http://oceanservice.noaa.gov/education/kits/pollution>. The new Discovery Kit includes a tutorial describing the categories of nonpoint source pollution, the various pollutants that originate from nonpoint sources, and research and monitoring efforts; a Roadmap to Online Resources; and two lesson plans designed to be used at the high school level.

THREE-MONTH CHANNEL ISLANDS NATIONAL MARINE SANCTUARY CALENDAR

NOVEMBER	
Nov 8, 9	<i>From Shore to Sea Lecture Series:</i> Steve Junak, Herbarium Curator, Santa Barbara Botanic Garden <i>Three decades of botanical exploration on the Channel Islands</i> Tuesday: 7:00 pm Chase Palm Park Center, 236 E. Cabrillo Blvd., Santa Barbara Wednesday: 7:00 pm Channel Islands National Park Visitor Center (1901 Spinnaker Drive in Ventura)
Nov 18	<i>Sanctuary Advisory Council Meeting</i> Channel Islands National Park Visitor Center (1901 Spinnaker Drive in Ventura) An agenda, directions and more information will be posted at: http://www.channelislands.noaa.gov/sac/announcement.html .
Nov 18-20	<i>Maritime Heritage Education Conference</i> Nauticus: the National Maritime Center in Norfolk, Virginia For more information on the conference go to: http://www.sanctuaries.noaa.gov/education/mhec/
Nov 19	<i>CINC Training Field Trip to Anacapa Island</i>
Nov 23	<i>2006 CINC applications due</i> Learn more about the CINC and download an application from: http://www.channelislands.noaa.gov/edu/edu_natc.html
DECEMBER	
Dec 11	<i>Santa Barbara Harbor twentieth annual Parade of Lights</i> 3:00 – 5:00 pm greet Santa Claus and Mrs. Claus on the city pier 5:30 pm the parade begin After parade an award ceremony and party will be held at Chuck's Waterfront Grill
Dec 13, 14	<i>From Shore to Sea Lecture Series:</i> Frank Gress, California Institute for Environmental Studies <i>Brown Pelicans: A Summary of 35 Years of Research at Anacapa Island</i> Tuesday: 7:00 pm Chase Palm Park Center, 236 E. Cabrillo Blvd., Santa Barbara Wednesday: 7:00 pm Channel Islands National Park Visitor Center (1901 Spinnaker Drive in Ventura)
JANUARY	
Jan 20	<i>Sanctuary Advisory Council Meeting</i> Casa Las Palmas (323 E. Cabrillo Blvd. in Santa Barbara) An agenda, directions and more information will be posted at: http://www.channelislands.noaa.gov/sac/announcement.html .

Learn More About Your Sanctuary

The Sanctuary Manager's Report is produced bi-monthly by the Channel Islands National Marine Sanctuary in conjunction with Sanctuary Advisory Council meetings. To learn more about the sanctuary please visit our web site at: <http://www.channelislands.noaa.gov/>.

To learn more about the Sanctuary Advisory Council please visit:
<http://www.channelislands.noaa.gov/sac/main.html>.

The National Marine Sanctuary Program

The Channel Islands National Marine Sanctuary is one of 13 marine sanctuaries in the National Marine Sanctuary Program. This program was established under the National Marine Sanctuaries Act of 1972 which authorizes the Secretary of Commerce to designate as national marine sanctuaries areas of the marine environment or Great Lakes with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or aesthetic qualities. Visit the NMSP web site at: <http://www.sanctuaries.nos.noaa.gov/>

Channel Islands National Park

To learn about Channel Islands National Park visit their web site at: <http://www.nps.gov/chis/homepage.htm>.

GET INVOLVED AND STAY INFORMED!

To learn how to get involved in the sanctuary visit:
<http://www.channelislands.noaa.gov/focus/involved.html>

Sign up for the CINMS listserv to receive email notices about upcoming sanctuary events, and public meetings of the Sanctuary Advisory Council and its working groups:
<http://www.channelislands.noaa.gov/focus/list.html>

CINMS Staff

Christopher Mobley – Sanctuary Manager
Todd Jacobs – Assistant Manager
Shauna Bingham – Volunteer and Outreach Coordinator
Julie Bursek – Education Coordinator, Oxnard Office
Amy Cale – Web Developer
Jonna Engel – Marine Reserves Outreach Specialist
Sarah Fangman – Research Coordinator
Laura Francis – Education Coordinator, Santa Barbara Office
Clare Fritzsche – CINC Volunteer Administrative Assistant
Sean Hastings – Resource Protection Coordinator
LT Julie V. Helmers – Executive Officer
Lorri Herr – Program Support Specialist
Jacklyn Kelly – Sanctuary Advisory Council and Event Specialist
Rochelle King – Administration Specialist
Charles Lara – Deckhand
Dani Lipski – Research Assistant
Rocío Lozano de Knowlton – MERITO Community Liaison
Sarah MacWilliams – Management Plan Specialist
Michael Murray – Advisory Council and Management Plan Coordinator
Luman Moody – Vessel Captain
LTJG Kate Peet – Operations Officer
Tina Reed – Education and Outreach Administrator
Robert Schwemmer – Regional Maritime Heritage Coordinator
Natalie Senyk – Scientific Advisor
Terrence Shinn – Vessel Captain
Ben Waltenberger – Physical Scientist
Rebecca Young – Database Coordinator

CINMS Interns

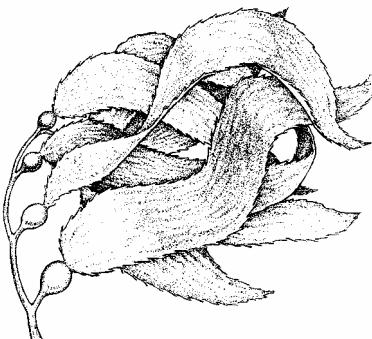
Allison Chan – Resource Protection Intern
Daryl Austin – Education Intern

NMSP West Coast Staff

Columbine Culberg – Ocean Etiquette Program Manager/Liaison to Aquarium of the Pacific
Claire Johnson – West Coast Education Liaison
Sarah Marquis – West Coast Media Coordinator

Channel Islands Marine Sanctuary Foundation

Anna Chouteau – Executive Director



- CONTACT INFORMATION -

Channel Islands National Marine Sanctuary

Santa Barbara Office
Santa Barbara Harbor
113 Harbor Way, Suite 150
Santa Barbara, California
93109
Phone: (805) 966-7107
Fax: (805) 568-1582

Oxnard Office
Channel Islands Harbor
3600 S. Harbor Blvd., Suite 111
Oxnard, California
93035
Phone: (805) 382-6149
Fax: (805) 382-9791